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TAPA

Paper mulberry (*Broussonetia papyrifera*), called *mahute*, was cultivated near the houses in stone enclosures (*manavai*, fig. 2). Today some paper mulberry trees grow wild on the inner slopes of Rano-raraku, but the steep sides of the crater can be reached only with great difficulty.

The best stalks for tapa making are the tender saplings which have neither side shoots nor buds. In ancient days they were collected by the men, who also peeled them. The bark must be peeled the same day or the day after the saplings are gathered.

A longitudinal slit is made with a knife (formerly an obsidian splinter) along the stalk, and the bark is pulled off with the hands (*ka ihi te kiri*) to obtain the greatest possible length. The outer bark is separated from the inner bast (*ka huhure*) with a knife. The strips (*kohiti*) are rolled into coils to make them flat and smooth with the inner surface outside. The coils are soaked in fresh water for three or four days to loosen the fibers before final beating. Formerly they were first put in salt water, then in fresh water for several days. Women carried the strips of bast to the seashore and, squatting on the shore, beat the material for hours while their assistants carried water to sprinkle the bast. When they performed this work they were naked in order not to damage their clothing.

Tapa beaters (*iko*) were carved from *toro-miro* wood and were "about a foot long and 3 inches on each face. Some of the faces were smooth and others carved into grooves or ribs, to suit the different stages on the process of manufacture" (215, p. 467). Only two Easter Island tapa beaters have been preserved (fig. 22, *a*, *b*). Modern women use the first suitable branch to be found.

Zumbohm (230, vol. 5, p. 664) says that polished stones were used for beating tapa, and this statement is borne out by present-day natives. In Bishop Museum (B3496) there is a stone labeled "pounder" which may possibly have served as a tapa beater. So far as we know, the Easter Islanders never pounded taro or any other kind of food as do many Polynesians. No instruments which could be identified as pounders have been found on the island. The so-called pounder in Bishop Museum has a natural conical shape that fits the hand. The base of the cone shows traces of use as if the specimen had been employed to pound or mash some soft substance.

The anvil was usually a smooth boulder of more or less square shape. Near old settlements the Franco-Belgian Expedition found big boulders with one surface showing traces of use. The natives pointed them out as ancient tapa anvils. In more recent times the Easter Island women beat their tapa on big logs.

The woman knelt in front of the anvil and gently beat the *mahute* (*tutu te mahute*) strips, sprinkling them repeatedly with water. Nowadays the beating process is short, and the tapa is rather coarse. Thomson (215, p. 467) mentions two kinds of tapa—one fine, the other coarse and heavy. After beating, the tapa sheets were carefully stretched with the hand to prevent wrinkling or bulging. They were extended (*hakatere*) between banana leaves and put in the air to dry. The strips were sewn together with needles and fine strings of *hau*. The needles (*iti tia una*) were generally of bird bones but perhaps some were of human bones. A great many are found in caves. Their length ranges from 3 to 21 cm., the most common length being 8 to 12 cm. Some needles are strongly curved; these are generally wide (0.5 cm.), and the side corresponding to the interior of the bone has a longitudinal depression. Single or double eyes are drilled near the rounded end of the needle.

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287 413 Tapa strips were sewn together over the edge of a piece of wood carved into the form of a club (*paoa tia nua*) or a wooden or bone plate. A whalebone plate serving this purpose was collected by Geiseler (fig. 22, *c*) which is identical to a breast ornament (pp. 230, 231); its function as a support may be a later specialization.

294 287 Geiseler collected a robe made of four distinct layers of tapa. It is composed of basted strips 35 cm. wide which run across the longer side. The threads are 2-ply twisted cords forming rows of stitches at right angles to the length of the strips. The stitches are 1 cm. long, and at intervals of 4 to 5 cm. At the edges, the threads are brought back and fastened on the back surface with a running stitch 2 cm. long. Stitches were sometimes used for decorative purposes.

287 Two coarser tapa sheets were purchased by the Franco-Belgian Expedition. On both sheets, the strips are sewn together with irregular hemming stitches. The edges of the strips are sewn only where they tend to bulge. The sheets are sewn across with rows of basting stitches to hold the strips together. On one sheet these stitches are 7 or 8 cm. apart and on the other 2 cm. apart. The threads are fastened at the edges with a back stitch and the ends of the threads are lost in the material. No tapa from Easter Island shows any trace of the use of a glutinous substance to stick the strips together.

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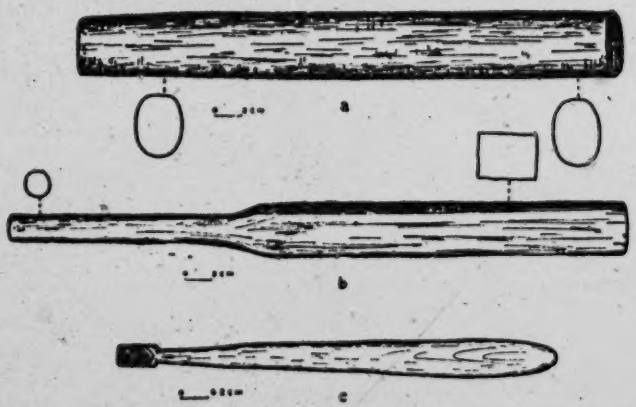

FIGURE 22.—Tapa beaters and support for sewing (Mus. f. Völkerkunde, Berlin): *a*, simple oval stick, probably a piece of wood picked up for temporary use and then discarded, 44.5 cm. long, diameter at center 5 cm. (VI.4876); *b*, flat beater with upper and lower surfaces slightly slanting toward proximal end, rounded, slightly pentagonal handle separated from beater by distinct shoulders on two sides, all surfaces smooth, shows signs of use; total length 46 cm., beater 4.5 cm. wide and 3.5 cm. thick, handle 2 cm. wide and 2 cm. thick at butt end (VI.4916, collected by Geiseler in 1884); *c*, wooden club used as support for sewing tapa, 102 cm. long (Geiseler coll. no. 61).

COMPARISON WITH TAPA ON OTHER POLYNESIAN ISLANDS

287 171 The paper mulberry did not thrive in the cold climate of Easter Island and the supply of bark cloth was always meager. The Easter Island tapa-making technique is, in general, identical with that of the rest of Polynesia.

The soaking of the bast in water for a few days—generally after a preliminary beating—is called "retting" by Burrows, who studied the distribution

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of this process. He considers it typical of central and marginal Polynesia (Rapa, Austral Islands, Cook Islands, Marquesas, Society Islands, and Hawaii). In western Polynesia retting occurs only in Tonga. Preliminary beating before soaking is not mentioned for Easter Island, Tonga, and Hawaii.

The square shape of the Easter Island tapa beater (fig. 22, *b*) resembles slightly the Mangarevan specimens. The relative thinness of the Mangarevan tapa beaters is due to the use of pandanus which affords only a thin slab of hard wood. The scarcity of wood on Easter Island may have brought about the same form. Tapa beaters were reconstructed for me by an intelligent native. Little ethnological value may be set on specimens patterned after dim recollections; but though not grooved, their general shape was fairly near the ordinary square tapa beater with rounded grip, usual in marginal and central Polynesia.

The anvil on which the bark was beaten was a square stone, because no logs were available. Stone anvils are described for the Marquesas (142, p. 473), but they do not seem to have been used in any other part of Oceania.

Easter Island is the only place in Polynesia where strips were fastened together by sewing. Elsewhere in eastern Polynesia the strips were felted together; in western Polynesia they were pasted. Tapa sewing was practiced in Hawaii to join together several sheets in order to make a blanket of many layers and sewing has been reported in the Society Islands (26, pp. 104-109). The basting stitch, used exclusively on Easter Island, is found on some old Hawaiian tapa.

Needles identical to those used on Easter Island for sewing tapa have been found in New Zealand and the Chatham Islands. They are probably pre-European, but no satisfactory suggestion has been made as to their use. The similarities between Easter Island and New Zealand needles are so great that details such as the occasional presence of two eyes on one needle, are present in both regions. The Easter Island needles like those of New Zealand have very small eyes which were bored by a technique which is puzzling. Steele (211, p. 187) supposes that in New Zealand these eyes were drilled either with a mature-bone drill on a green-bone subject, or by sawing on both sides of the needle with obsidian splinters until a hole appeared; the latter technique was apparently employed on Easter Island. Among the needles I collected on Easter Island some are curved, a form which also occurs in New Zealand. Needles with eyeholes were employed for sewing tapa in Hawaii, as on Easter Island. The specimens mentioned by Brigham are especially long and thick and more like the needles of Tonga, Fiji, and Wallis Island for sewing mat sails than the delicate bone needles of Easter Island.

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and was then put into a piece of tapa and wrung (*hakahihi* or *istu*). The liquid and starch (*pia*) were strained (*iuhe*) into a calabash (*hi roto hi te ipu*), where the starch settled to the bottom. The water was decanted or left to evaporate. All my informants agreed that the latter process consisted in leaving the starch in the air to dry (*he tauahi no hakapakopako*). Probably the *renga* was cooked in special containers as on Mangareva and Samoa. The yellow powder which was obtained after this long preparation was mixed with sugar-cane juice and rubbed on the body. The sugar-cane juice (*pua oura*) used as an adhesive came from dry stalks peeled with an obsidian knife and pounded between two stones (*tingitingi*). This sticky substance was mixed with both turmeric and *ngoraha* (charred ti leaves).

G. Forster (83, vol. 1, p. 564) writes on the application of dye to the body: "The women were seldom satisfied with their natural brown colour, but painted the whole face with a reddish brown ruddle, over which they laid on the bright orange of the turmeric root; or ornamented themselves with elegant streaks of white shell-lime." Beechey (15, vol. 1, p. 48) describes the painting of the natives as follows: "Some [men] had their faces painted black, some red, others black and white, or red and white, in the ludicrous manner practised by our clown, and two demon-like monsters were painted entirely black." According to Eyraud (81, vol. 38, p. 56) the women used only red colors, whereas the men smeared themselves with any kind of dye. Some idea of the face painting of the natives can be gained from a tapa image in the Peabody Museum (fig. 30).

The head of the image is banded from the top of the skull to the mouth, by eight broad strips of black, white, and orange. The mouth region is stained in orange (turmeric). The black bands could represent tattooing but they are darker than the actual tattooed surfaces and combine with the white and orange stripes that undoubtedly represent painting. This image may not be the exact model of a painted and tattooed man, for there is no indication of hair; the painted stripes could have been arranged in this fashion only if the individual had been carefully shaven.

For dyeing cloth the dry starchy turmeric was diluted with water and applied to the cloth with a brush made of feathers (*huruhuru moa*). A very simple method of dyeing consisted in chewing the turmeric and spitting the dyed saliva on the cloth. The sheets stained in this manner were called *pua roiroi*. The cloth made now for trade is decorated with fanciful designs drawn with a piece of turmeric moistened in water.

Tattooing

Implements

The art of tattooing (*ta*) was abandoned shortly after the arrival of the missionaries. It was practiced by experts (*maori* or *takona*) whose work was supervised by the king. Their implements were a tattooing comb (fig. 32, *e*), a wooden mallet, and a calabash or box containing dark pigment.

Easter Island tattooing combs (*uhi*) are preserved in the Museum für Völkerkunde, Berlin (VI.4921) and in the Museum für Völkerkunde, Vienna (22830-22834). The

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413 combs are made of bird bones with the convex surface at the front. The length varies between 75 mm. and 90 mm. and the maximum width between 7 and 8 mm. The comb tapers toward the rounded butt or is slightly constricted near the top to facilitate lashing to the handle (fig. 32, *a*). The distal end has five to seven teeth.

[304] To puncture the skin, the operator struck on the tattooing comb with a wooden mallet (*miro-pua-uhi*). A mallet in the Museum für Völkerkunde, Berlin (VI.4921b), is a plain stick of *hau* 420 mm. long.

386 The pigment (*ngarahu* or *kere*) was prepared from charred ti leaves mixed with *poporo* (*Solanum nigrum*) juice. It was kept in a little wooden box or wrapped in a piece of tapa (87, p. 51).

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FIGURE 30.—Image made of bulrushes tied together with fiber bands (paper mulberry bast ?) and covered completely with tapa painted to represent body painting and tattooing (Peabody Mus., Cambridge, 53543): *a*, front; *b*, back; *c*, side; white, black, and orange colors; eyes made of circles covered with tapa and sewn onto head covering; ears of folded tapa sewn to temples, teeth of tapa sewn to gums; fingers and toes made of wood splinters; sewing of tapa with *hau* strings hardly visible; total height 39 cm.

DESIGNS

Sources of Information

304 There are only two tattooed persons still living on Easter Island: old Viriamo, Tepano's mother and Ana Eva Hei, the wife of Atamu Te Kena, one of the last "kings" of Easter Island. Viriamo has tights entirely of blue. Ana Eva Hei has two parallel stripes crossing her forehead from one ear to the other and the inner edge of the ear tattooed (134, p. 256). The design on her lower jaw is composed of a triangular figure which meets an oval design, together forming an open angle. Her hands are covered with

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The graphic documents confirm the observations of voyagers. The only representations of a full tattooing are the tapa images referred to above and the man sketched by Choris (49, pl. 11). A young man represented by Loti (145, p. 68) has the face undecorated though the body is beautifully tattooed. The native whom Stolpe (214, pp. 4-5) studied so carefully had only the head decorated in the ancient style. The motifs on the rest of his person were few and unimpressive.

These variations in the extent of the tattooed surfaces are good evidence that on Easter Island as in the Marquesas, tattooing was a lengthy process that took place at different periods of life.

FIGURE 32.—Tattooing comb and tattooed face designs: *a*, tattooing combs of bird bone: 1, comb 75 mm. long lashed at right angles to a handle 203 mm. long with thin white tapa bound round in a ball and then lashed with thin thread; 2, comb with six teeth, slight constriction below knob, 88 mm. long, 8 mm. wide at lower end (Mus. f. Völkerkunde, Vienna); *b*, tattooing of woman's face (from Lavachery, 134, p. 256); *c*, tattooing of man's face, vertical stripes on forehead given human form by adding dot at upper end of tapering body and bent arms at side (from Stolpe, 214, fig. 4).

Face Designs

Forehead. Tattooing of the forehead was called *retu*. Two parallel, straight or curved lines banded the forehead just below the hair line and then continued down the temples, turning backward at the level of the eyes (fig. 32, *b*). If curved, the parallel lines were divided into three segments: one in the middle with the concavity up and the others on either side. A series of large dots (*humu* or *puraki*) always ran below and along the stripes. Six to ten vertical, fusiform, or straight, solid stripes filled in the remaining space (fig. 32, *c*). The parallel lines across the forehead and the fringe of dots were the first motifs tattooed on the face, as evidenced by the fact that they were present on persons whose tattooing remained unfinished. This pattern was the most general, since it is the one commonly recorded by the early voyagers.

The Easter Island man depicted in Du Petit-Thouars' atlas (fig. 33, *a*) has triangular patches on the temples and in the middle of the forehead. This tattooing may be oversimplified and perhaps is not entirely reliable.

Forster (83, vol. 1, p. 564) writes: "They are all prodigiously punctured on every part of the body, the face in particular; and their women who were very small and

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212 used "to send him to the chickens." Juan had had the offer of learning one form of such script, but, not unnaturally, had looked upon it with some contempt, preferring European accomplishments. The information which could be gathered was, therefore, with one exception, which will be noted later, simply that of the layman, or man in the street, who had been aware of the existence of the art and seen it going on around him, but had no personal knowledge.

The tablets were of all sizes up to 6 feet. It was a picturesque sight to see an old man pick up a piece of banana-stem, larger than himself, from among the grove in which we were talking, and stagger along with it to show what it meant to carry a tablet, though, as he explained, the sides of the tablet were flat, not round like the stem. It is said that the original symbols were brought to the island by the first-comers, and that they were on "paper," that when the paper was done, their ancestors made them from the banana plant, and when it was found that withered they resorted to wood. Every clan had professors in the art who were known as rongo-rongo men ("tangata-rongo-rongo"). They had houses apart, the sites of which are shown in various localities. Here they practised their calling, often sitting and working with their pupils in the shade of the bananas; their wives had separate establishments. In writing, the incision was made with a shark's tooth: the beginners worked on the outer sheaths of banana-stems, and later were promoted to use the wood known as "toro-miro."[1]

The glyphs are, as will be seen, so arranged that when the figures of one row are right way up, those of the one immediately below it are on their heads; thus only alternate rows can, at the same time, be seen in correct position (fig. 98). The method of reading was, according to Te Haha, to read one row from left to right, then come back reading the next from right to left, the method known as boustrophedon, from the manner in which an ox ploughs a furrow. The finished ones were wrapped in reeds and hung up in the houses. According to two independent authorities they could only be touched by the professors or their servants, and were taboo to the uninitiated, which, however, does not quite agree with other statements, nor with that of the missionaries that they were to be found in "every house." They

[1] Sophora Toromiro.